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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/850,981	05/08/2001	Toshitaka Yoshihiro	450100-03211	2922
20999	7590	10/06/2005		
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			EXAMINER BOCCIO, VINCENT F	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/850,981	Applicant(s) YOSHIHIRO ET AL.	
	Examiner Vincent F. Boccio	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 8-10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

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DETAILED ACTION

The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 2616.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 11 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Lane et al. (US 6,141,486).

Regarding claims 1-2, Lane discloses and meets the limitations associated an apparatus and corresponding method for recording to a tape digital image data into a track/tracks on a magnetic tape by a rotating head, comprising:

- input means, extracting means for extracting image data for variable speed reading or reproduction (Fog. 10 A, trick play packets "308-310-312-314", normal packets "316-318-314");
- recording means for recording image data by the extracting means at almost the center of the track (Fig. 13 A, "Normal Playback Track, in center of track areas, having 4.5 blocks above and below the normal play track),

or

- recording the digital image data in a distributed manner into the first and second areas to be traced

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during variable speed reading (col. 36, lines 16-17, "The trick play data may comprise a subset of the normal play data", also Fig. 13 A, shows utilizing the normal area for trick reproduction or reading), positioned in a track located in the vicinity of the track which includes the first area (Fig. 13 A);

- wherein during variable speed reading in either direction normal image data is read in common (such as Fig. 17 shows both directions -9 and + 9 as well as other speeds), claim 2;
- wherein the recording means sets a predetermined number of tracks in one group and records to the first and second in a predetermined pattern (Fig. 13 A, one trace from one head over 9 tracks for 9x in either direction), claim 3;
- wherein the tape has two azimuths (col. 43, lines 17-20), therefore, one head will always be close or closer than the other based on forward or reverse trace speeds, wherein as the forward or reverse speed increases one head will always trace an angle of the track closer to the azimuth of a track, as recited in claims 4.

Claims 11 method of recording and claim 13 data structure are deemed analyzed and discussed with respect to the claims above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject

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matter pertains. Patentability shall not be negated by the manner in which the invention was made. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lane et al. (US 6,141,486) in view of Yanagihara (US 6,028,726).

Regarding claim 5, Lane provides for dual azimuth recording but, fails to disclose using the azimuth track for higher speeds closer to direction of the magnetic material and using the opposite azimuth to record smaller times faster trick modes, wherein the closer azimuth to the trace is used for higher, while the other azimuth is reserved for lower.

Yanagihara teaches using two azimuths for first and second trick play speeds (abstract), but fails to identify faster being closer to arranged direction of the magnetic material, while reserving the other for lower speeds.

The examiner takes official notice that thru routine experimentation, those skilled in the art with the teaching of Yanagihara, which suggestion to user different azimuths for different trick modes, would come to the conclusion thru experimentation, that the higher trick modes would be enhanced by being closer to the arrangement, thereby generating more signal, by selecting the azimuth angle closer to arrangement direction and user the other azimuth on slower speeds, wherein being slower provides, more signal capture than higher, as is deemed obvious to those skilled in the art.

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify Lane by incorporating using a closer azimuth for higher speeds and the other for lower, as taught by Yanagihara and thru routine experimentation to

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select the closer for higher trick modes, while using the other for lower speeds, as is deemed would have been obvious to those skilled in the art.

5. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lane et al. (US 6,141,486) in view of Rijckaert (US 6,339,673).

Regarding claims 6-7, Lane is deemed to meet the limitation of n times faster reading at intervals of n track or $2n$ tracks, where n is a power of 2 (Fig. 13 C, 3 x, 6 tracks, multiple heads, with different azimuths) and the arranged digital image data is used during M times faster variable in the positive direction, but, fails to disclose that M is a power of 2, interpreted as even speed reproduction, rather Lane shows odd speeds, rather than even, wherein $m > n$.

Rijckaert, teaches in Fig. 6, trick of $M = 24X$, over $n = 48$ tracks as an example, as taught by Rijckaert.

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify Lane's data structure to achieve even fold speeds, considered to be a design choice and an obvious modification of processing to achieve even speeds vs. odd speeds, as even speeds $24X$, over 48 track type data structure as an example being taught by Rijckaert.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lane et al. (US 6,141,486).

Regarding claim 12, Lane discloses the claimed invention, but, fails to particularly disclose a computer readable program facilitating the method.

The examiner takes official notice that hardware versions of a system performing logical steps can be done with software to facilitate the same, as software lends itself to modification by simple updating the software, while hardware has its own advantages normally faster, but, either version is obvious over each other, therefore, it would have been obvious to those skilled in the art to modify Lane by performing steps by a program to facilitate the method, as is obvious to those skilled in the art.

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Allowable Subject Matter

1. Claim 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 8, the prior art of record teaches duplicating first areas or normal play data in the trick area, but, fails to disclose duplicating the normal in the normal region or as recited,

- recording digital image data into each of the first and second areas, **into each area** a plurality of times or more than once in both areas, as shown in Fig. 14 for example, page 21, in the center region or the first area.

Contact Fax Information

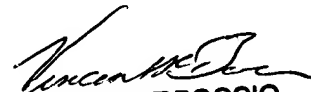
Any response to this action should be faxed to:

(571) 273-8300, for communication as intended for entry, this Central Fax Number as of 7/15/05

Contact Information

Any inquiry concerning this communication or earlier communications should be directed to the examiner of record, Monday-Tuesday & Thursday-Friday, 8:00 AM to 5:00 PM Vincent F. Boccio (571) 272-7373.

Primary Examiner, Boccio, Vincent
10/2/05


VINCENT BOCCIO
PRIMARY EXAMINER